

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) A system for deploying content to devices, comprising:

a translator operative to receive data sent from devices and to translate said data into a standardized format;

a content provider interface operative to receive said data in said standardized format and to provide content data in said standardized format;

a transformer operative to receive said content data and to transform said content data into a format for a particular device; and

a session manager to examine data content communicated between at least one of said devices and said content provider and to identify and return state-based information based on interactions between said devices and said content provider, said state based information comprising at least one of a type of device originating a request, a hypertext history and a content provider state maintained for a back-end information source.

2. (previously presented) The system according to claim 1, wherein:

said standardized format is an XML message.

3. (previously presented) The system according to claim 1, wherein:

said transformer is operative to select a transformation based on a pre-selected format and to transform said content data using said selected transformation.

4. (previously presented) The system according to claim 3, wherein:

said transformation is selected from a group of XSL style sheets.

5. (previously presented) The system according to claim 3, wherein:

said transformer is operative to select a plurality of transforms and to apply said plurality of transforms in at least one of sequentially and independently, to transform said content data.

6. (previously presented) The system according to claim 1, further comprising:

an extractor operative to access session information about a browser of said particular device.

7. (previously presented) The system according to claim 1, further comprising:

a composer operative to generate a combined response to said particular device from a plurality of responses received to a plurality of requests provided to a plurality of content providers.

8. (previously presented) The system according to claim 1, wherein:

said devices are wireless devices.

9. (previously presented) A method of communicating with devices that use different communication schemes, comprising:

- receiving first data from one or more devices;
- translating said first data into a standardized format;
- providing said translated data to a content provider interface;
- receiving second data response from said content provider interface in said standardized format;

- transforming said second data into content type specific forms for said one or more devices;

- forwarding said transformed second data to said one or more devices; and

- session managing to examine data content communicated between said one or more devices and said content provider interface and to identify and return state-based information based on interactions between said one or more devices and said content provider, said state based information comprising at least one of a hypertext history and a content provider state maintained for a back-end information source.

10. (previously presented) The method according to claim 9, further comprising:

- extracting information about said device from said first data.

11. (previously presented) The method according to claim 10, wherein:

- said extracted information includes device specific features.

12. (previously presented) The method according to claim 10, wherein said transforming step comprises:

selecting an XSL style sheet based on said extracted information;
and
using said selected XSL style sheet to transform said second data.

13. (previously presented) The method according to claim 10, wherein:

said extracted information includes information about a browser.

14. (previously presented) The method according to claim 10, wherein:

said extracted information includes a message key.

15. (previously presented) The method according to claim 14, further comprising:

selecting said content provider interface based on said message key.

16. (previously presented) The method according to claim 14, wherein said message key includes at least one of:

a vertical market;
an action;
an action type; and
a content provider identifier (ID).

17. (previously presented) The method according to claim 16, wherein:

said vertical market is a brokerage market, said action is a quote, said action type is at least one of a request and a response, and said content provider ID corresponds to a particular brokerage.

18. (previously presented) The method according to claim 12, wherein:

at least two style sheets are selected and applied independently to said second data.

19. (previously presented) The method according to claim 12, wherein:

at least two style sheets are selected and applied to transform said second data.

20. (previously presented) The method according to claim 19, wherein:

said style sheets are applied sequentially.

21. (previously presented) The method according to claim 19, wherein:

an order of applying said style sheets is pre-selected.

22. (previously presented) The method according to claim 19, wherein:

at least three style sheets are applied both independently and sequentially.

23. (previously presented) The method according to claim 9, wherein:

said first data is a request.

24. (previously presented) The method according to claim 23, wherein:

said request is an hyper-text transfer protocol (HTTP) request.

25. (previously presented) The method according to claim 9, wherein:

said second data is a response.

26. (previously presented) The method according to claim 9, wherein:

said standardized format of said second data is an XML message format.

27. (previously presented) The method according to claim 9, wherein:

said content provider is a third party.

28. (previously presented) The method according to claim 9, further comprising:

querying a provider database if said content provider is a new content provider; and

receiving a previously registered XSL style sheet associated with said new content provider from said provider database.

29. (previously presented) The method according to claim 9, wherein:

said providing step includes providing said translated data to more than one of said content providers, and further comprising: composing a combined set using said second data of said more than one content providers.

30. (previously presented) The method according to claim 9, wherein:

said device is a wireless device.

31. (withdrawn) A method for spontaneously sending data to a device, comprising:

- sending data and an identifier (ID) to a transformer;
- looking up the ID in a database to associate it with a device;
- selecting a style sheet based on the device;
- transforming the data using the selected style sheet into transformed data; and
- forwarding the transformed data to the device.

32. (withdrawn) The method according to claim 31, wherein the ID includes at least one of: a device ID;

- a user ID;
- a client ID; and a customer ID.

33. (withdrawn) The method according to claim 31, wherein the database includes information about a browser.

34. (withdrawn) The method according to claim 31, wherein the data includes information about a message key.

35. (withdrawn) The method according to claim 31, wherein the message key includes at least one of

- a vertical market; an action;
- an action type; and
- a content provider identifier (ID).

36. (withdrawn) The method according to claim 35, wherein the vertical market is a brokerage market, the action is a threshold alert, the action type is a push, and the content provider ID corresponds to a particular brokerage.

37. (withdrawn) The method according to claim 33, wherein at least two style sheets are selected and applied to transform the data.

38. (withdrawn) The method according to claim 32, wherein the style sheets are applied at least one of: sequentially, independently and a combination of both.

39. (withdrawn) The method according to claim 32, wherein an order of applying the style sheets is pre-selected.

40. (withdrawn) The method according to claim 38 wherein the independent application is simultaneous.

41. (withdrawn) The method according to claim 32, wherein the content provider is a third party service.

42. (withdrawn) The method according to claim 32, further comprising:

querying a provider database if the content provider is a new content provider; and

receiving a previously registered XSL style sheet associated with said new content provider from the provider database.

43. (withdrawn) The method according to claim 32, wherein said device is a wireless device.

44. (withdrawn) A method for deploying markup content to browser applications comprising the following steps:

- accepting inbound data;
- transforming said inbound data into XML messages; selecting a content provider interface;
- forwarding said XML messages to the selected content provider interface;
- receiving an XML message response from the content provider interface;
- selecting at least one XSL style sheet from a group of XSL style sheets;
- transforming said XML message response into outbound data using said at least one selected XSL style sheet; and
- forwarding said outbound data to the browser application.

45. (withdrawn) The method according to claim 44, further comprising: extracting session information from said inbound request.

46. (withdrawn) The method according to claim 44, further comprising: transmitting said XML messages to a content provider.

47. (withdrawn) The method according to claim 44, wherein said selecting step comprises: selecting said content provider interface from a group of content provider interfaces based on a unique message key.

48. (withdrawn) A method for deploying markup content to browser applications on devices, comprising:

- accepting requests from devices;
- processing said requests as synchronous messages via a block and wait mechanism;
- retrieving information related to at least one of form data, session data, MIME data, and a message key in order to generate an XML stream;
- parsing said XML stream into an XML message;
- determining all content provider interfaces that can handle said XML message based on said message key;
- selecting a content provider interface to process said XML message;
- forwarding said XML message to said selected content provider interface;
- receiving a response from said selected content provider interface;
- selecting one or more XSL style sheets;
- transforming said response into one or more forms using said selected XSL style sheets; and
- forwarding said transformed response to said devices.

49. (withdrawn) The method according to claim 48, further comprising the steps of:

- creating a DOM; and
- setting a runtime parameter to validate XML against a document type definition (DTD).

50. (withdrawn) The method according to claim 48, wherein said device is a wireless device.

51. (withdrawn) The method according to claim 48 wherein at least two XSL style sheets are selected and further comprising applying the style sheets at least one of sequentially and independently.

52. (withdrawn) The method according to claim 51 wherein the independent application is done simultaneously.

53. (withdrawn) The method according to claim 51 wherein an order of applying the XSL style sheets is pre-selected.

54. (withdrawn) The method according to claim 48 wherein at least three XSL style sheets are selected and applying the style sheets at least one of sequentially, independently, and a combination of both.

55. (withdrawn) The method according to claim 54 wherein the independent application is done simultaneously.

56. (previously presented) A method of communicating from a device to a controller using different communication schemes, comprising:

sending first data from one or more devices using one or more transmission formats to a controller;

receiving from said controller second data using content specific forms for said one or more devices, wherein said first data is translated by said controller into a standardized format and conveyed to a content provider;

receiving said second data by said controller from said content provider in said standardized format;

transforming by said controller said second data into said content specific forms; and

session managing to examine data content communicated between said one or more devices and said content provider interface and to identify and return state-based information based on interactions between said one or more devices and said content provider, said state based information comprising at least one of a hypertext history and a content provider state maintained for a back-end information source.

57. (previously presented) A method of transforming data, comprising:

receiving a message;

extracting information from said message;

selecting transformation specifications based on said extracted information;

session managing to examine data content within said message and to identify and return state-based information based on interactions between one or more devices and a content provider, said state based information comprising at least one of a hypertext history and a content provider state maintained for a back-end information source; and

applying said selected transformation specifications and said state-based information to said data.

58. (previously presented) The method of claim 57, further comprising:

retrieving said transformation specifications from a database.

59. (previously presented) The method of claim 57, further comprising:

cross-referencing said transformation specifications in said database to said extracted information.

60. (previously presented) The method of claim 57, wherein:

said message includes a message key.

61. (previously presented) The method according to claim 60 wherein said message key includes at least one of:

- a vertical market;
- an action;
- an action type; and
- a content provider identifier (ID).

62. (previously presented) The method of claim 57, wherein said message comprises:

session information including at least one of a user agent and a device type.

63. (previously presented) The method of claim 57, wherein: said transformation specifications are specified as XSL style sheets.

64. (previously presented) The method of claim 63, wherein: a single XSL style sheet is selected.

65. (previously presented) The method of claim 63, wherein: multiple XSL style sheets are selected.

66. (previously presented) The method of claim 57, wherein: said message is an XML message.

67. (withdrawn) A method for applying multiple transformations to data, comprising:

- selecting a plurality of transformation specifications based on information about the data; and
- sequentially applying the transformation specifications to the data.

68. (withdrawn) The method of claim 67, wherein a result of each interim transformation is wellformed XML.

69. (withdrawn) The method of claim 67, wherein an order of applying the transformation specifications is pre-selected.

70. (withdrawn) The method of claim 67, wherein the data is an XML message.

71. (withdrawn) The method of claim 67, wherein the transformation specification is an XSL style sheet.

72. (withdrawn) A method for applying multiple transformations to data, comprising:

selecting plurality of transformation specifications based on information about the data; and

independently applying the transformation specifications to the data, resulting in more than one output.

73. (withdrawn) The method of claim 72, further comprising applying another transformation specification either before or after the independent application of the plurality of transformation specifications.

74. (withdrawn) The method of claim 72 wherein the independent application is simultaneous.

75. (withdrawn) In a content delivery system including a translator receiving data sent from devices and translating the data into a message, a method for converting the data into the message, the method comprising:

creating Java bindings for each message in a document type definition; wrapping the java bindings in a class; and
calling a method on the class to create the message.

76. (withdrawn) The method of claim 75, wherein the message is an XML message.

77. (withdrawn) A method of converting an HTTP request into a message, comprising:

receiving the HTTP request;
extracting form variables needed for the message from the HTTP request;
forming the message including the extracted form variables.

78. (withdrawn) The method of claim 77 wherein the HTTP request includes a message key.

79. (withdrawn) The method of claim 78, further comprising:
determining an action from the message key; and determining the form variables associated with the action.

80. (withdrawn) The method of claim 77 wherein the message is an XML message.

81. (withdrawn) The method of claim 80 wherein XSL style sheets transform the form variables from the XML message.

82. (withdrawn) The method of claim 81 wherein the XSL is registered in a database.

83. (withdrawn) A system for converting HTTP requests into a standard message format, comprising:

a message controller receiving the HTTP request; and

a request transformer to parse form variables out of the HTTP request to generate an XML stream.

84. (withdrawn) The system of claim 83, further comprising:

at least one database;

an XML transformer to parse the XML stream into an output stream and to transform the XML stream using XSL transforms by retrieving information from the at least one database based on specifications in the HTTP request.

85. (withdrawn) The system of claim 84 wherein the XSL transforms are registered in the database.

86. (previously presented) A system for communicating from a device to a controller using different communication schemes, comprising:

means for sending first data from one or more devices using one or more transmission formats to a controller;

means for receiving from said controller second data using content specific forms for said one or more devices;

means for translating said first data by said controller into a standardized format conveyed to a content provider;

means for receiving said second data by said controller from said content provider in said standardized format;

means for transforming by said controller said second data into said content specific forms; and

means for session managing to examine data content communicated between said one or more devices and said content provider interface and to identify and return state-based information based on interactions between said one or more devices and said content provider, said state based information comprising at least one of a hypertext history and a content provider state maintained for a back-end information source.

87. (previously presented) The system according to claim 1, wherein:

said content provider state comprises a session token that said content provider needs to perform transactions on behalf of said devices

88. (previously presented) The method according to claim 9, wherein:

said content provider state comprises a session token that said content provider needs to perform transactions on behalf of said devices

89. (previously presented) The method of claim 57, wherein:
said content provider state comprises a session token that said
content provider needs to perform transactions on behalf of said devices

90. (previously presented) The system according to claim 56,
wherein:

said content provider state comprises a session token that said
content provider needs to perform transactions on behalf of said devices